CLAIMS

1. Process for calculating the position of a mobile station (MS) belonging to a cellular radiocommunication system, starting from an identifier of a current geographic cell in which the said mobile station is located,
characterized in that it includes the following steps:

- calculate a modelled geographic representation (5) of the current cell;
- calculate the barycentre (6) of the said modelled geographic representation of the current cell;
- calculate an uncertainty area (7), with a predetermined geometric shape, centred on the said barycentre and the area of which is approximately equal to the area of the said modelled geographic representation of the current cell;

and in that the position of the mobile station is defined by the said barycentre, with an uncertainty equal to the said uncertainty area.

2. Process according to claim 1, characterised in that the said calculation of a modelled geographic representation (5) of the current cell consists of using a radio prediction tool to calculate a set of points in which the radio frequency field in the current cell is stronger than that in other cells.

3. Process according to either of claims 1 or 2, characterised in that the said geometric shape belongs to the group comprising;

- disks;
- polygons, preferably hexagons, squares and equilateral triangles..

4. Process according to either of claims 1 or 2, characterised in that the said geometric shape is a polygon

and in that the said polygon is oriented along the largest direction of the current cell.

5. Process according to any one of claims 1 to 4, characterised in that the position of the mobile station is calculated dynamically.

6. Process according to any one of claims 1 to 5, characterised in that it comprises a prior step to extract the identifier of the current cell from at least one signal message circulating on the radiocommunication system network.

7. Process according to claim 6, characterised in that the said extraction is triggered if at least one of the following conditions is satisfied when the mobile station makes a call:

- the number of the mobile station belongs to a predetermined list of calling numbers;
- the number called by the mobile station belongs to a predetermined list of called numbers;
- the current cell belongs to a predetermined list of cells.

8. Process according to any one of claims 1 to 7, characterised in that the position of the mobile station and the associated uncertainty are input into a positioning database (2) so that at least one geodependent service can be provided.

9. Device (1) for calculating the position of a mobile station belonging to a cellular

radiocommunication system starting from the identifier of a current geographic cell in which the said mobile station is located,

characterized in that it comprises:

- means of calculating a modelled geographic representation (5) of the current cell;
- means of calculating the barycentre (6) of the said modelled geographic representation of the current cell;
- means of calculating an uncertainty area (7), with a predetermined geometric shape centred on the said barycentre and the area of which is approximately equal to the area of the said modelled geographic representation of the current cell;

the position of the mobile station being defined by the said barycentre with an uncertainty equal to the said uncertainty area.

10. Process according to claim 9, characterised in that it is integrated into a radio frequency planning tool (4) for the geographic cells in the said cellular radiocommunication system.

11. Computer program comprising portions / means / program code instructions for execution of the steps in the process according to any one of claims 1 to 8 when the said program is executed on a computer.

12. Computer program intended for calculating the position of a mobile station (MS) belonging to a cellular radiocommunication system starting from an identifier of a current geographic cell in which the said mobile station is located, the said computer program comprising portions / means / program code instructions recorded on a medium that can be used in a computer, comprising:

- programming means that can be read by a computer to perform the calculation step for a modelled geographic representation (5) of the current cell;

- programming means that can be read by a computer to perform the calculation step to determine the barycentre (6) of this said modelled geographic representation of the current cell;

- programming means that can be read by a computer to perform the calculation step to determine an uncertainty area (7) with a predetermined geometric shape centred on the said barycentre and the area of which is approximately equal to the area of the said modelled geographic representation of the current cell;

the position of the mobile station being defined by the barycentre, with an uncertainty equal to the uncertainty area.